

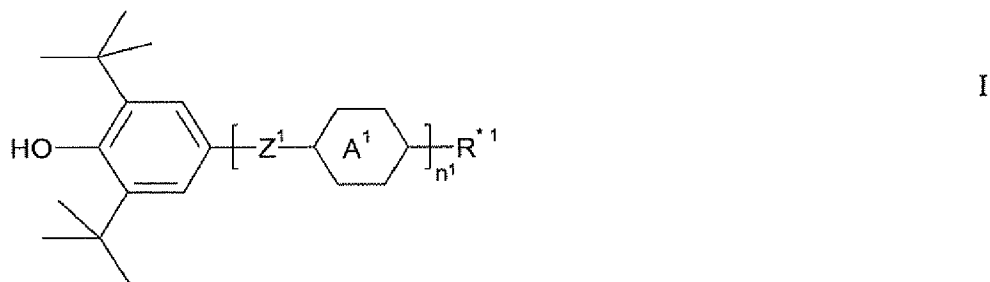
The listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A compound according to claim 3, which is capable of inducing a cholesteric phase in a nematic liquid crystal and simultaneously acting as a stabiliser.

2. (Previously Presented) A compound according to claim 3, which is capable of acting as a free-radical scavenger.

3. (Previously Presented) A compound of formula I



in which

R^{*1} is a chiral radical,

Z^1 is, if present more than once, in each case, independently of one another, $-CH_2-CH_2-$, $-CH=CH-$, $-C\equiv C-$, $-COO-$, $-OCO-$, $-CH_2O-$, $-OCH_2-$, $-CF_2O-$, $-OCF_2-$, $-(CH_2)_4-$, $-CF=CF-$, $-CH=CF-$, $-CF=CH-$, $-CH_2-$, $-CF_2-$, $-CHF-$, $-O-$, $-S-$ or a single bond,



is, if present more than once, in each case, independently of one another,

- (a) a trans-1,4-cyclohexylene radical, in which one or more non-adjacent CH_2 groups are optionally replaced by $-O-$ and/or $-S-$,
- (b) a 1,4-cyclohexenylene radical,
- (c) a 1,4-phenylene radical, in which one or two CH groups are optionally replaced by N , or
- (d) 1,4-bicyclo[2.2.2]octylene, piperidine-1,4-diyl, naphthalene-2,6-diyl, decahydronaphthalene-2,6-diyl, or 1,2,3,4-tetrahydronaphthalene-2,6-diyl,

where these radicals (a) to (d) and the phenolic benzene ring is optionally mono- or

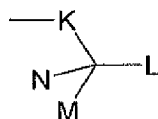
polysubstituted by F atoms, and

n^1 is 1, 2 or 3,

wherein

A)

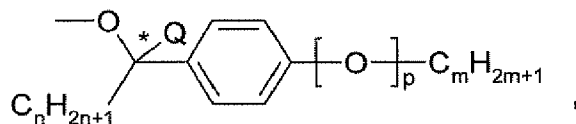
R^{*1} is a chiral radical of the following formula



in which

K is a single bond, alkylene having 1 to 9 C atoms, alkenylene or alkynylene having 2 to 9 C atoms, wherein one, two or more of the $-CH_2-$ groups present in the alkylene, alkenylene or alkynylene are optionally replaced by $-O-$, $-C=O-$ or $-S-$, but where no two O atoms are bonded directly to one another, and the alkylene, alkenylene or alkynylene are optionally substituted by halogen, or

R^{*1} is

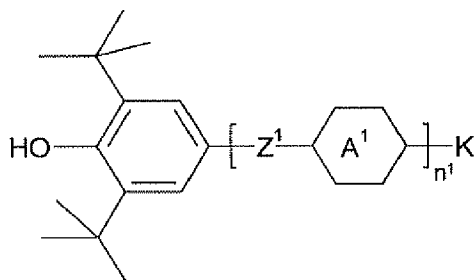


Q is H or halogen,

n and m are different from one another and, independently of one another, are 1 to 11,

p is 0 or 1, and

L, M and N, each, independently of one another, but differently from one another and from



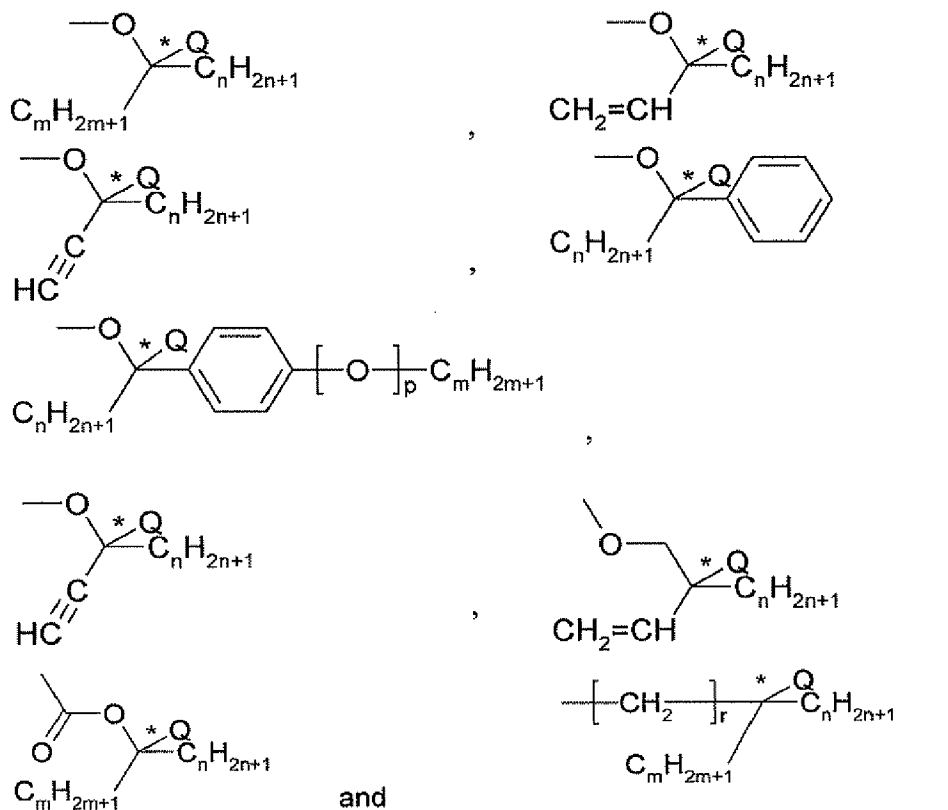
are hydrogen, halogen, aryl or cycloalkyl, alkyl or alkoxy having 1 to 11 C atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms, where one, two or more of the $-CH_2-$ groups present in the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally replaced by $-O-$, $-C=O-$ or $-S-$, but where no two O atoms are bonded directly to one another

and the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally substituted by halogen;

or

B)

R^{*1} is a chiral radical of one of the following formulae



in which

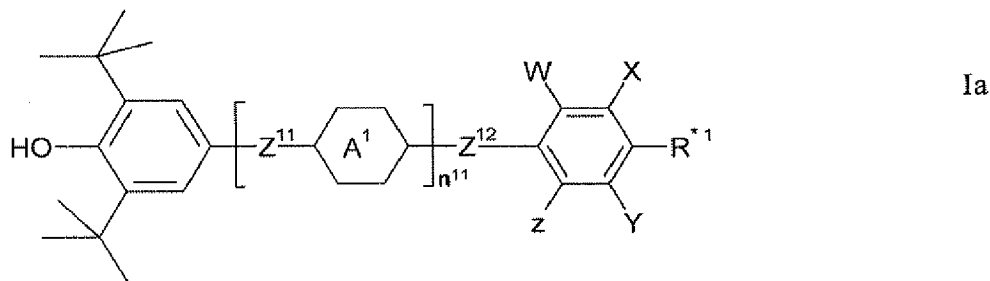
Q is H or halogen,

n and m are different from one another and, independently of one another, are 1 to 11,

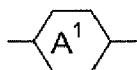
p is 0 or 1, and

r is 0 to 4.

4. (Currently Amended) A compound of formula Ia



in which



is, if present more than once, in each case, independently of one another,

- (a) a trans-1,4-cyclohexylene radical, in which one or more non-adjacent CH₂ groups are optionally replaced by -O- and/or -S-,
- (b) a 1,4-cyclohexenylene radical,
- (c) a 1,4-phenylene radical, in which one or two CH groups are optionally replaced by N, or
- (d) 1,4-bicyclo[2.2.2]octylene,
piperidine-1,4-diyl, naphthalene-2,6-diyl,
decahydronaphthalene-2,6-diyl, or
1,2,3,4-tetrahydronaphthalene-2,6-diyl,

where these radicals (a) to (d) and the phenolic benzene ring is optionally mono- or polysubstituted by F atoms,

R^{*1} is a chiral radical,

Z¹¹ and Z¹² are, each independently, and in case if Z¹¹ present more than once, in each case, independently of one another, -CH₂-CH₂-, -CH=CH-, -C≡C-, -COO-, -OCO-, -CH₂O-, -OCH₂-, -CF₂O-, -OCF₂-, -(CH₂)₄-, -CF=CF-, -CH=CF-, -CF=CH-, -CH₂-, -CF₂-, -CHF-, -O-, -S- or a single bond,

n¹¹ is 0, 1 or 2,

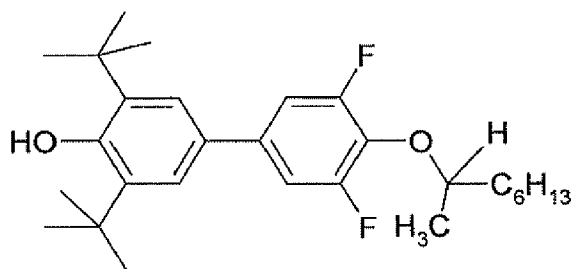
W and Z are each, independently of one another, H, F, Cl, or alkoxy, and

X and Y are each, independently of one another, H, F, Cl, alkyl or alkoxy,

wherein

A)

the compound of formula Ia is



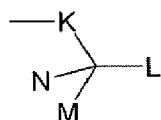
;

or

B)

 R^{*1}

is a chiral radical of the following formula



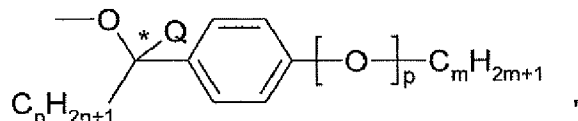
in which

K

is a single bond, alkylene having 1 to 9 C atoms, alkenylene or alkynylene having 2 to 9 C atoms, wherein one, two or more of the $-\text{CH}_2-$ groups present in the alkylene, alkenylene or alkynylene are optionally replaced by $-\text{O}-$, $-\text{C}=\text{O}-$ or $-\text{S}-$, but where no two O atoms are bonded directly to one another, and the alkylene, alkenylene or alkynylene are optionally substituted by halogen, or

 R^{*1}

is



Q

is H or halogen,

n and m

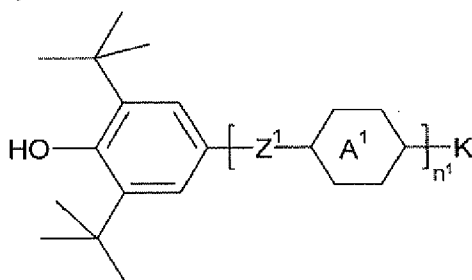
are different from one another and, independently of one another, are 1 to 11,

p

is 0 or 1, and

L, M and N,

each, independently of one another, but differently from one another and from



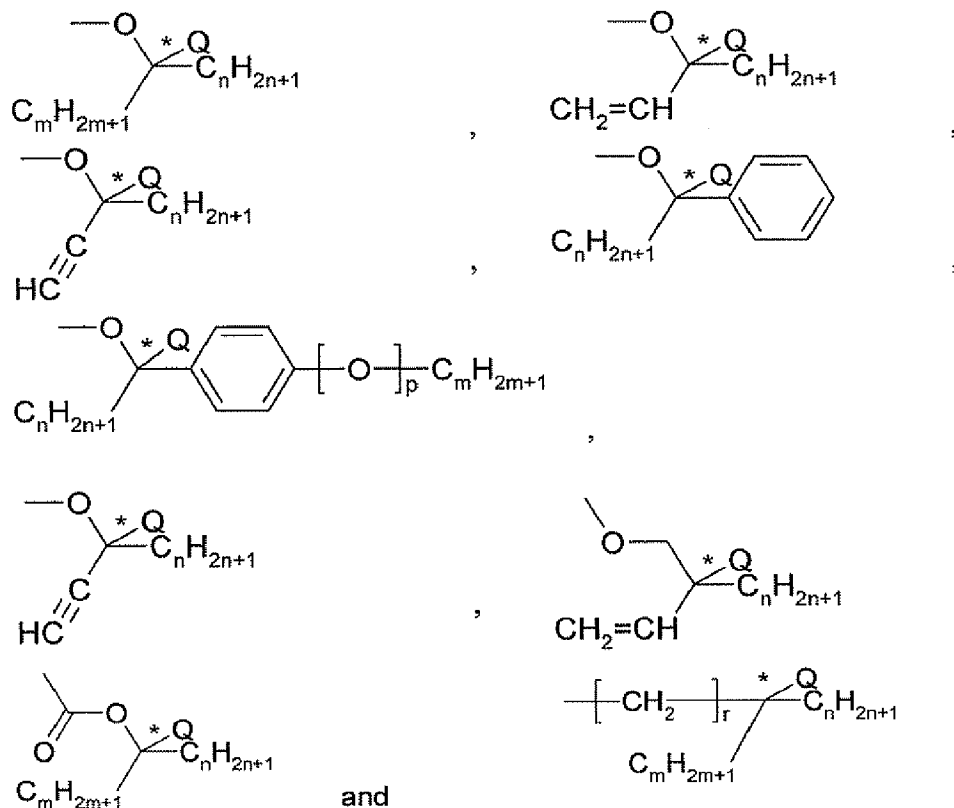
are hydrogen, halogen, aryl or cycloalkyl, alkyl or alkoxy having 1 to 11 C

atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms, where one, two or more of the $-\text{CH}_2-$ groups present in the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally replaced by $-\text{O}-$, $-\text{C}=\text{O}-$ or $-\text{S}-$, but where no two O atoms are bonded directly to one another and the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally substituted by halogen;

or

C)

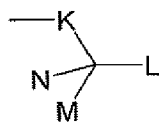
R^{*1} is a chiral radical of one of the following formulae



in which

Q is H or halogen,
 n and m are different from one another and, independently of one another, are 1 to 11,
 p is 0 or 1, and
 r is 0 to 4.

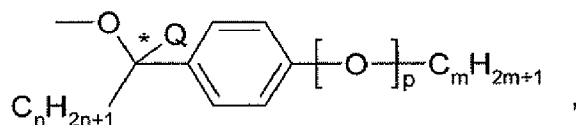
5. (Previously Presented) A compound according to claim 3, wherein R^{*1} is a chiral radical of the following formula



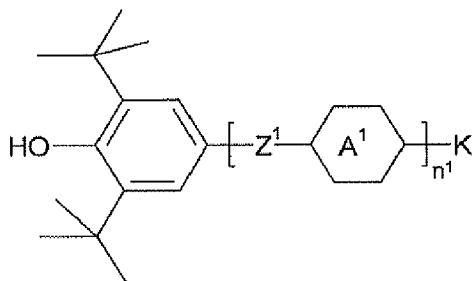
in which

K is a single bond, alkylene having 1 to 9 C atoms, alkenylene or alkynylene having 2 to 9 C atoms, wherein one, two or more of the $-\text{CH}_2-$ groups present in the alkylene, alkenylene or alkynylene are optionally replaced by $-\text{O}-$, $-\text{C}=\text{O}-$ or $-\text{S}-$, but where no two O atoms are bonded directly to one another, and the alkylene, alkenylene or alkynylene are optionally substituted by halogen, or

R^{*1} is

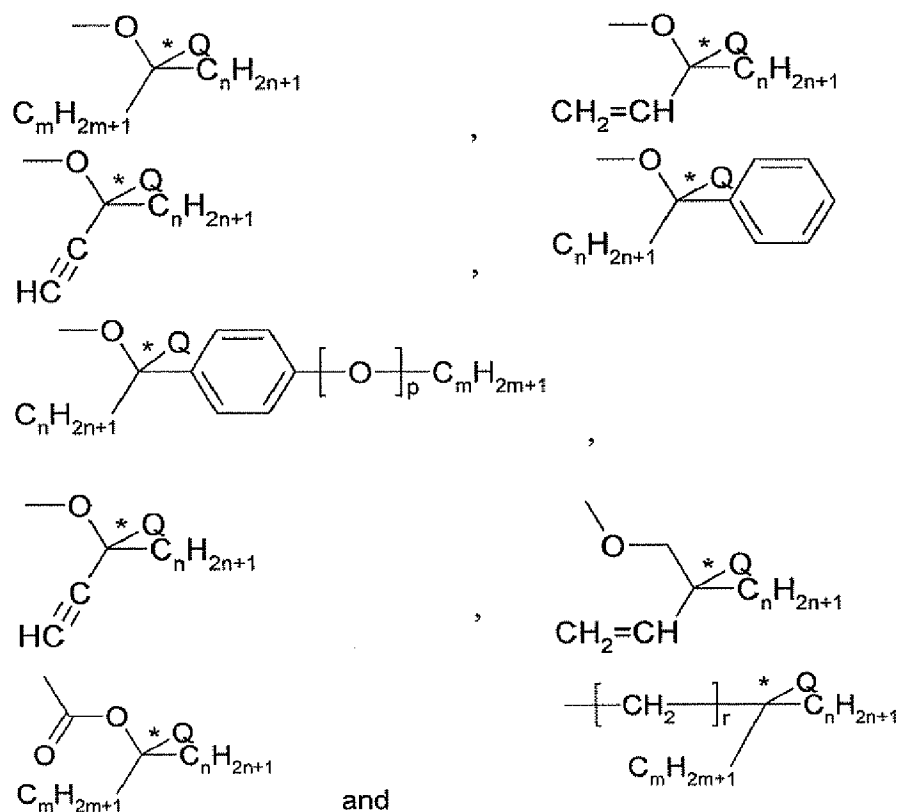


Q is H or halogen,
 n and m are different from one another and, independently of one another, are 1 to 11,
 p is 0 or 1, and
 L, M and N, each, independently of one another, but differently from one another and from



are hydrogen, halogen, aryl or cycloalkyl, alkyl or alkoxy having 1 to 11 C atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms, where one, two or more of the $-\text{CH}_2-$ groups present in the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally replaced by $-\text{O}-$, $-\text{C}=\text{O}-$ or $-\text{S}-$, but where no two O atoms are bonded directly to one another and the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally substituted by halogen.

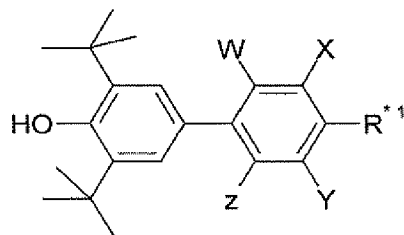
6. (Previously Presented) A compound according to claim 3, wherein
 R^{*1} is a chiral radical of one of the following formulae



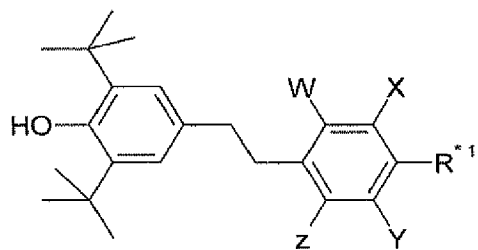
in which

Q is H or halogen,
 n and m are different from one another and, independently of one another, are 1 to 11,
 p is 0 or 1, and
 r is 0 to 4.

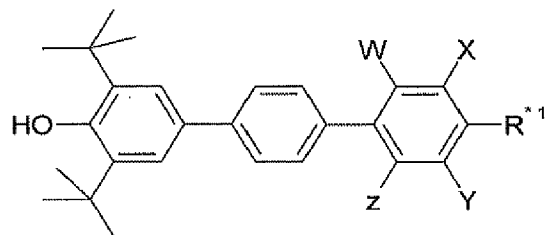
7. (Previously Presented) A compound of formula Ia-2, Ia-3, Ia-4, Ia-5, Ia-6, Ia-7, Ia-8, or Ia-9



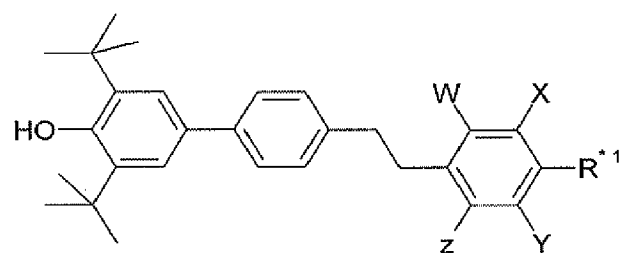
Ia-2



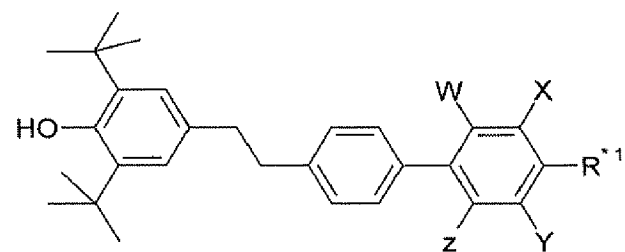
Ia-3



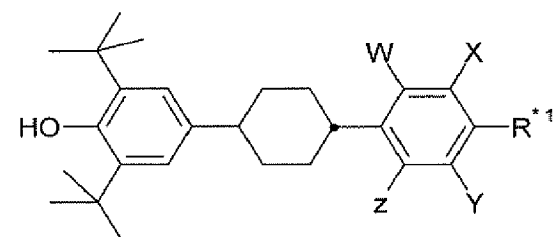
Ia-4



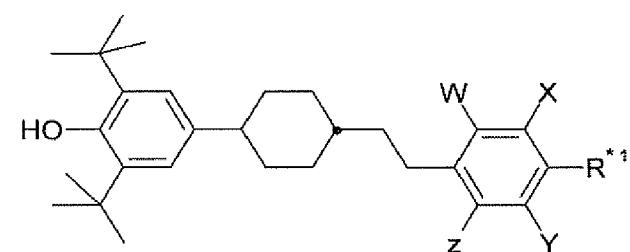
Ia-5



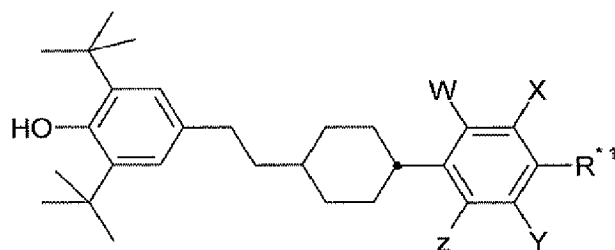
Ia-6



Ia-7



Ia-8



Ia-9

wherein

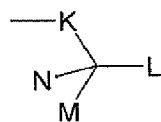
W, X, Y and Z are each, independently of one another, H, F, Cl, alkyl or alkoxy,

R^{*1} is a chiral radical;

wherein

A)

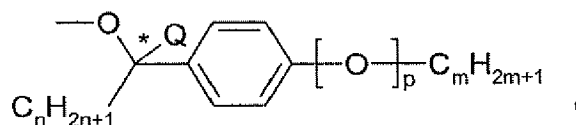
R^{*1} is a chiral radical of the following formula



in which

K is a single bond, alkylene having 1 to 9 C atoms, alkenylene or alkynylene having 2 to 9 C atoms, wherein one, two or more of the $-CH_2-$ groups present in the alkylene, alkenylene or alkynylene are optionally replaced by $-O-$, $-C=O-$ or $-S-$, but where no two O atoms are bonded directly to one another, and the alkylene, alkenylene or alkynylene are optionally substituted by halogen, or

R^{*1} is

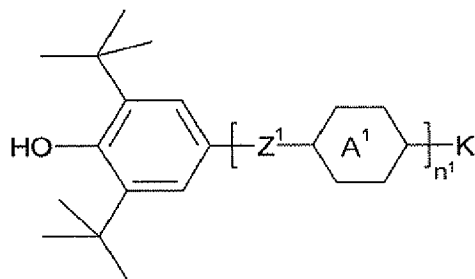


Q is H or halogen,

n and m are different from one another and, independently of one another, are 1 to 11,

p is 0 or 1, and

L, M and N, each, independently of one another, but differently from one another and from

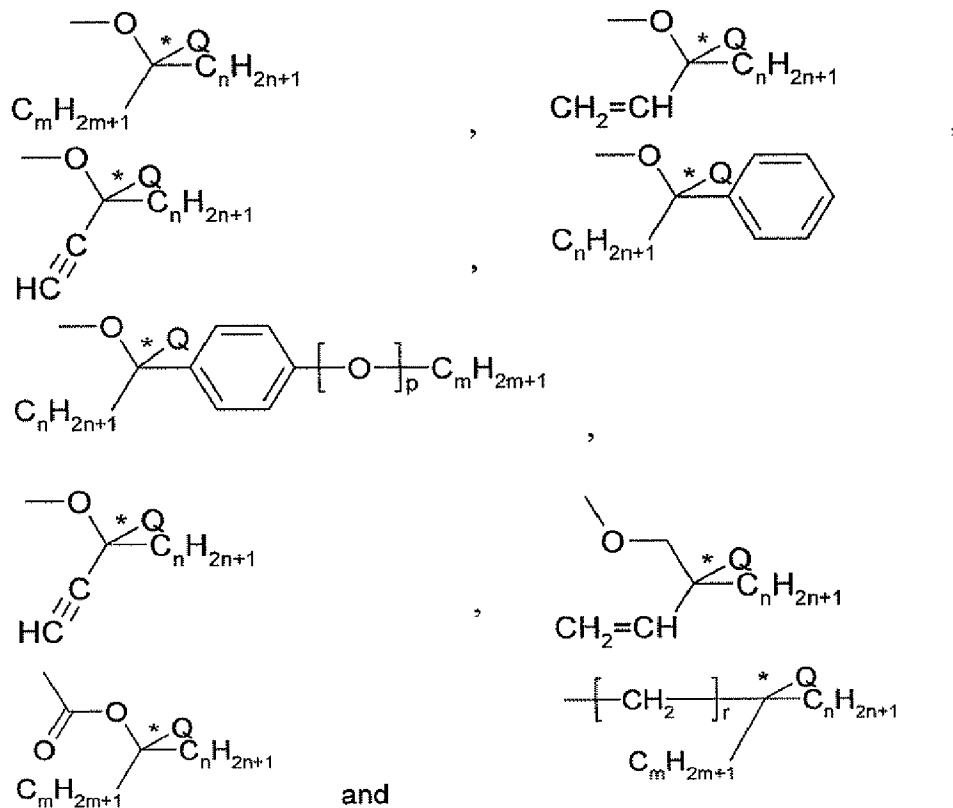


are hydrogen, halogen, aryl or cycloalkyl, alkyl or alkoxy having 1 to 11 C atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms, where one, two or more of the -CH₂- groups present in the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally replaced by -O-, -C=O- or -S-, but where no two O atoms are bonded directly to one another and the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally substituted by halogen;

or

B)

R^{*1} is a chiral radical of one of the following formulae



and

in which

Q

is H or halogen,

n and m are different from one another and, independently of one another, are 1 to 11,
 p is 0 or 1, and
 r is 0 to 4.

8. (Withdrawn) A method of providing a chiral dopant, or a stabiliser, or a chiral dopant and simultaneously a stabiliser to a liquid crystal mixture, comprising adding a compounds according to claim 3 to said liquid crystal mixture.

9. (Previously Presented) A liquid-crystal medium comprising a compound according to Claim 3.

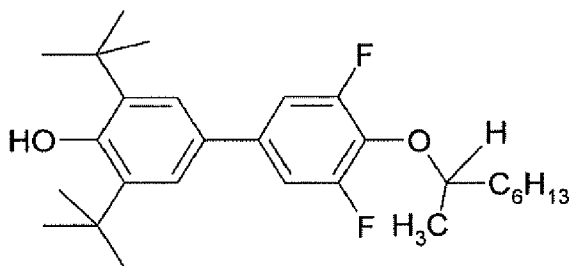
10. (Withdrawn) An electro-optical display comprising a liquid-crystal medium which comprises a compound according to claim 3.

11. (Cancelled)

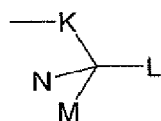
12. (Withdrawn) A process for preparing a liquid-crystal mixture, comprising mixing together a compound of formula I according to claim 3 with one or more liquid-crystal compounds other than a compound of formula I to form a liquid-crystal mixture.

13. (Cancelled)

14. (Previously Presented) A compound according to claim 4, which is



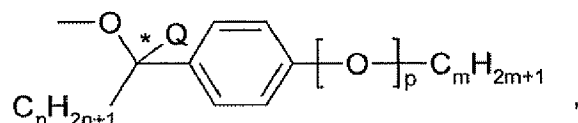
15. (Previously Presented) A compound according to claim 4, wherein R^{*1} is a chiral radical of the following formula



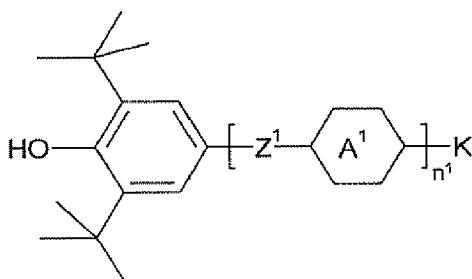
in which

K is a single bond, alkylene having 1 to 9 C atoms, alkenylene or alkynylene having 2 to 9 C atoms, wherein one, two or more of the $-\text{CH}_2-$ groups present in the alkylene, alkenylene or alkynylene are optionally replaced by $-\text{O}-$, $-\text{C}=\text{O}-$ or $-\text{S}-$, but where no two O atoms are bonded directly to one another, and the alkylene, alkenylene or alkynylene are optionally substituted by halogen, or

R^{*1} is

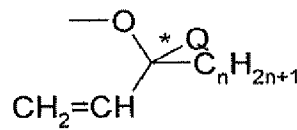
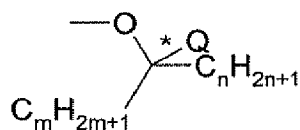


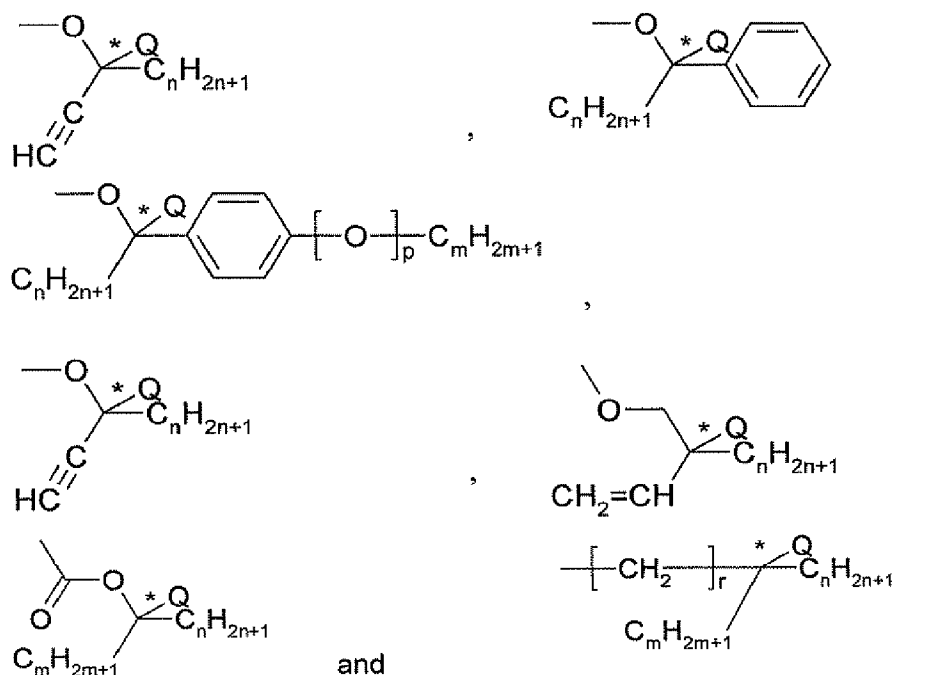
Q is H or halogen,
 n and m are different from one another and, independently of one another, are 1 to 11,
 p is 0 or 1, and
 L, M and N, each, independently of one another, but differently from one another and from



are hydrogen, halogen, aryl or cycloalkyl, alkyl or alkoxy having 1 to 11 C atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms, where one, two or more of the $-\text{CH}_2-$ groups present in the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally replaced by $-\text{O}-$, $-\text{C}=\text{O}-$ or $-\text{S}-$, but where no two O atoms are bonded directly to one another and the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally substituted by halogen.

16. (Previously Presented) A compound according to claim 4, wherein
 R^{*1} is a chiral radical of one of the following formulae





in which

Q is H or halogen,

n and m are different from one another and, independently of one another, are 1 to 11,

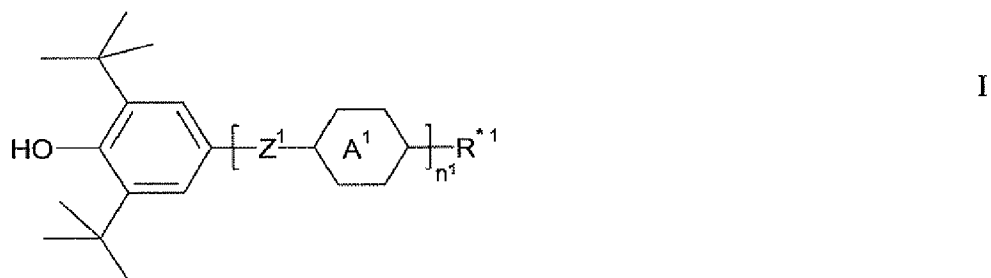
p is 0 or 1, and

r is 0 to 4.

17. (Previously Presented) A compound according to claim 4, wherein W and Z are each, independently of one another, H, F or Cl.

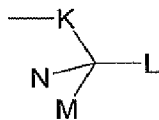
18. (Previously Presented) A compound according to claim 4, wherein W and Z are both H.

19. (Previously Presented) A compound of formula I



in which

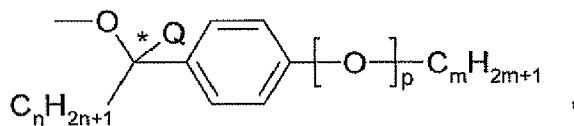
R^{*1} is a chiral radical of the following formula



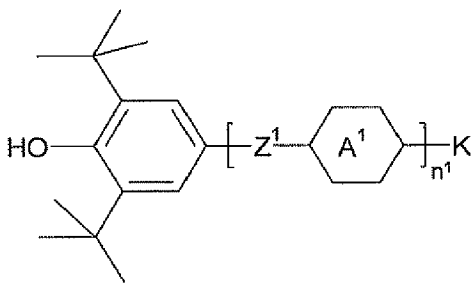
in which

K is a single bond, alkylene having 1 to 9 C atoms, alkenylene or alkynylene having 2 to 9 C atoms, wherein one, two or more of the $-CH_2-$ groups present in the alkylene, alkenylene or alkynylene are optionally replaced by $-O-$, $-C=O-$ or $-S-$, but where no two O atoms are bonded directly to one another, and the alkylene, alkenylene or alkynylene are optionally substituted by halogen, or

R^{*1} is a group



Q is H or halogen,
 n and m are different from one another and, independently of one another, are 1 to 11,
 p is 0 or 1,
 L, M and N, each, independently of one another, but differently from one another and from



are hydrogen, halogen, aryl or cycloalkyl, alkyl or alkoxy having 1 to 11 C atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms, where one, two or more of the $-CH_2-$ groups present in the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally replaced by $-O-$, $-C=O-$ or $-S-$, but where no two O atoms are bonded directly to one another and the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally substituted by halogen,

Z^1 is, if present more than once, in each case, independently of one another, $-CH_2-CH_2-$, $-CH=CH-$, $-C\equiv C-$, $-COO-$, $-OCO-$, $-CH_2O-$, $-OCH_2-$, $-CF_2O-$, $-OCF_2-$, $-(CH_2)_4-$, $-CF=CF-$, $-CH=CF-$, $-CF=CH-$, $-CH_2-$, $-CF_2-$, $-CHF-$, $-O-$, $-S-$ or a single bond,



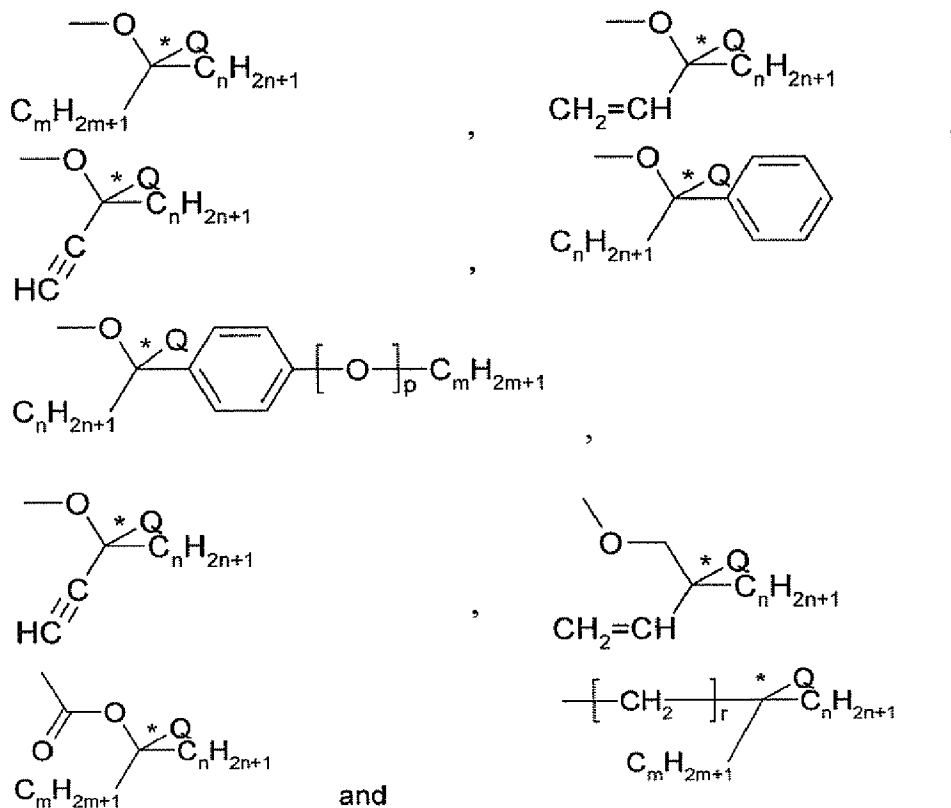
is, if present more than once, in each case, independently of one another,

- (a) a trans-1,4-cyclohexylene radical, in which one or more non-adjacent CH₂ groups are optionally replaced by -O- and/or -S-,
- (b) a 1,4-cyclohexenylene radical,
- (c) a 1,4-phenylene radical, in which one or two CH groups are optionally replaced by N, or
- (d) 1,4-bicyclo[2.2.2]octylene, piperidine-1,4-diyl, naphthalene-2,6-diyl, decahydronaphthalene-2,6-diyl, or 1,2,3,4-tetrahydronaphthalene-2,6-diyl,

where these radicals (a) to (d) and the phenolic benzene ring is optionally mono- or polysubstituted by F atoms, and

n^1 is 1, 2 or 3.

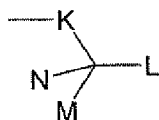
20. (Previously Presented) A compound according to claim 19, wherein R^{*1} is a chiral radical of one of the following formulae



in which

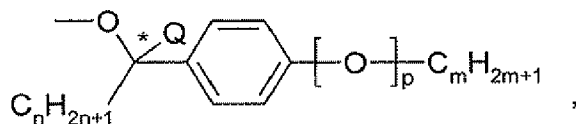
Q is H or halogen,
 n and m are different from one another and, independently of one another, are 1 to 11,
 p is 0 or 1, and
 r is 0 to 4.

21. (Previously Presented) A compound according to claim 7, wherein
 R^{*1} is a chiral radical of the following formula

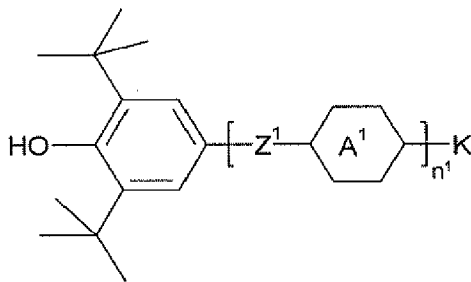


in which

K is a single bond, alkylene having 1 to 9 C atoms, alkenylene or alkynylene having 2 to 9 C atoms, wherein one, two or more of the $-CH_2-$ groups present in the alkylene, alkenylene or alkynylene are optionally replaced by $-O-$, $-C=O-$ or $-S-$, but where no two O atoms are bonded directly to one another, and the alkylene, alkenylene or alkynylene are optionally substituted by halogen, or
 R^{*1} is



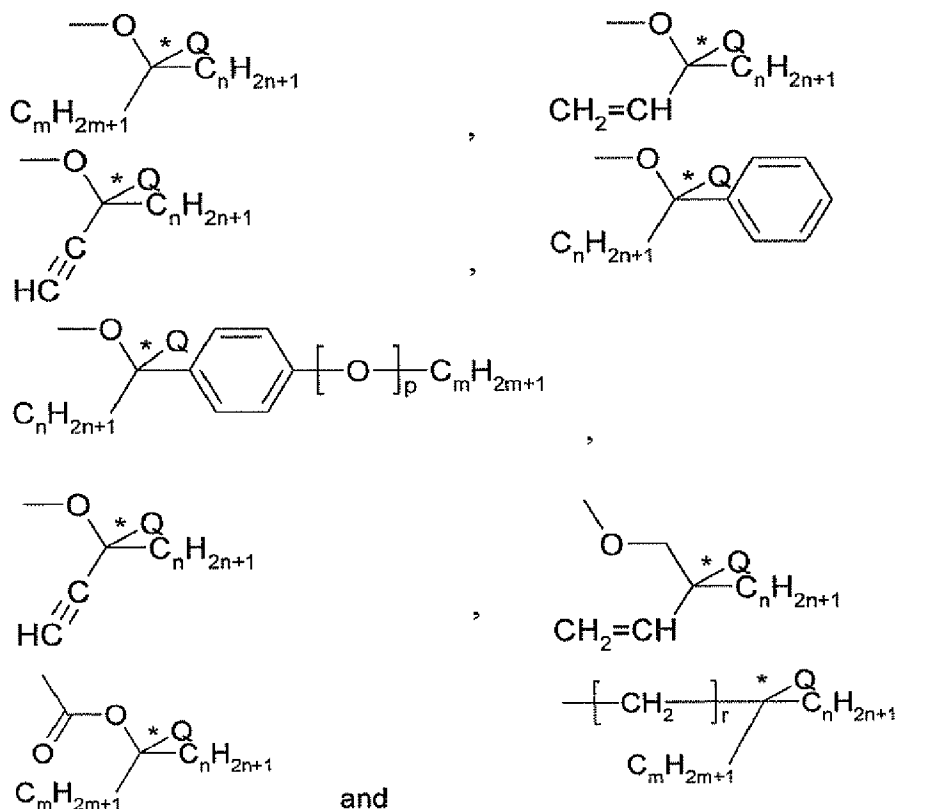
Q is H or halogen,
 n and m are different from one another and, independently of one another, are 1 to 11,
 p is 0 or 1, and
 L, M and N, each, independently of one another, but differently from one another and from



are hydrogen, halogen, aryl or cycloalkyl, alkyl or alkoxy having 1 to 11 C atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms,

where one, two or more of the $-\text{CH}_2-$ groups present in the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally replaced by $-\text{O}-$, $-\text{C}=\text{O}-$ or $-\text{S}-$, but where no two O atoms are bonded directly to one another and the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally substituted by halogen.

22. (Previously Presented) A compound according to claim 7, wherein R^{*1} is a chiral radical of one of the following formulae



in which

- Q is H or halogen,
 n and m are different from one another and, independently of one another, are 1 to 11,
 p is 0 or 1, and
 r is 0 to 4.

23. (Cancelled)

24. (Previously Presented) A compound according to claim 5, wherein K is a single bond, $-\text{CH}_2-$, $-\text{O}-$, $-\text{CO}-\text{O}-$, $-\text{CO}-\text{O}-\text{CH}_2-$, $-\text{O}-\text{CO}-$, $-\text{CH}_2-\text{CH}_2-$, $-\text{CH}=\text{CH}-$ or $-\text{C}\equiv\text{C}-$.

25. (Previously Presented) A compound according to claim 15, wherein K is a single bond, -CH₂-, -O-, -CO-O-, -CO-O-CH₂-, -O-CO-, -CH₂-CH₂-, -CH=CH- or -C≡C-.

26-28. (Cancelled)

29. (Previously Presented) A compound according to claim 5, wherein L, M and N are each, independently of one another, hydrogen, halogen, alkyl or alkoxy having 1 to 11 C atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms, where one, two or more of the -CH₂- groups present are optionally replaced by -O-, -C=O- or -S-, but where no two O atoms are bonded directly to one another, and are optionally substituted by halogen.

30. (Previously Presented) A compound according to claim 15, wherein L, M and N are each, independently of one another, hydrogen, halogen, alkyl or alkoxy having 1 to 11 C atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms, where one, two or more of the -CH₂- groups present are optionally replaced by -O-, -C=O- or -S-, but where no two O atoms are bonded directly to one another, and are optionally substituted by halogen.

31. (Previously Presented) A compound according to claim 29, wherein L, M and N are each, independently of one another, hydrogen, halogen, alkyl or alkoxy having 1 to 11 C atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms.

32. (Previously Presented) A compound according to claim 30, wherein L, M and N are each, independently of one another, hydrogen, halogen, alkyl or alkoxy having 1 to 11 C atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms.

33. (Cancelled)

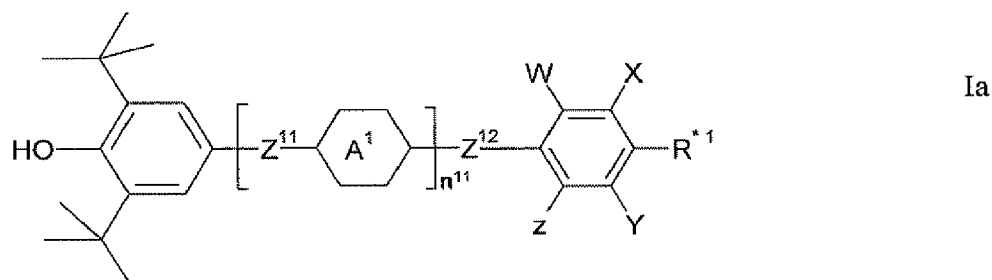
34. (Withdrawn) A method of providing a chiral dopant, or a stabiliser, or a chiral dopant and simultaneously a stabiliser to a liquid crystal mixture, comprising adding to said liquid crystal mixture a compound according to claim 4.

35. (Withdrawn) An electro-optical display comprising a liquid-crystal medium comprising a compound according to claim 4.

36-41. (Cancelled)

42. (Previously Presented) An electro-optical display comprising a liquid-crystal medium which comprises a compound according to claim 7.

43. (New) A liquid crystal mixture containing at least two liquid crystalline compounds one of which is a compound of formula Ia



in which



is, if present more than once, in each case, independently of one another,

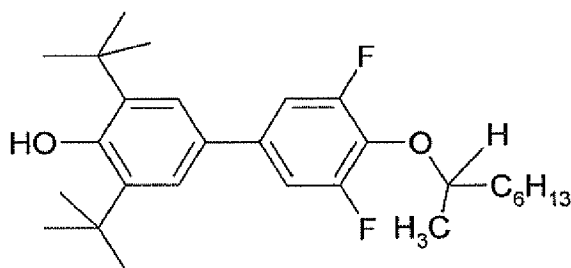
- (a) a trans-1,4-cyclohexylene radical, in which one or more non-adjacent CH₂ groups are optionally replaced by -O- and/or -S-,
- (b) a 1,4-cyclohexenylene radical,
- (c) a 1,4-phenylene radical, in which one or two CH groups are optionally replaced by N, or
- (d) 1,4-bicyclo[2.2.2]octylene, piperidine-1,4-diyl, naphthalene-2,6-diyl, decahydronaphthalene-2,6-diyl, or 1,2,3,4-tetrahydronaphthalene-2,6-diyl,

where these radicals (a) to (d) and the phenolic benzene ring is optionally mono- or polysubstituted by F atoms,

R*¹ is a chiral radical,

Z¹¹ and Z¹² are, each independently, and in case if Z¹¹ present more than once, in each case, independently of one another, -CH₂-CH₂-, -CH=CH-, -C≡C-, -COO-, -OCO-, -CH₂O-, -OCH₂-, -CF₂O-, -OCF₂-, -(CH₂)₄-, -CF=CF-, -CH=CF-, -CF=CH-, -CH₂-, -CF₂-, -CHF-, -O-, -S- or a single bond,

n^{11} is 0, 1 or 2,
 W and Z are each, independently of one another, H, F, Cl, or alkoxy, and
 X and Y are each, independently of one another, H, F, Cl, alkyl or alkoxy,
 wherein
 A)
 the compound of formula Ia is

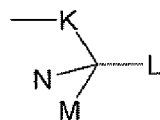


;

or

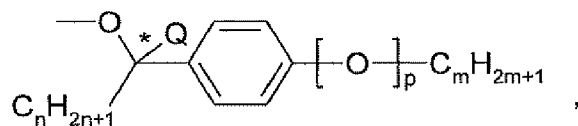
B)

R^{*1} is a chiral radical of the following formula



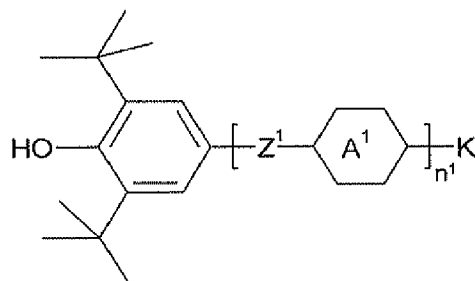
in which

K is a single bond, alkylene having 1 to 9 C atoms, alkenylene or alkynylene having 2 to 9 C atoms, wherein one, two or more of the $-CH_2-$ groups present in the alkylene, alkenylene or alkynylene are optionally replaced by $-O-$, $-C=O-$ or $-S-$, but where no two O atoms are bonded directly to one another, and the alkylene, alkenylene or alkynylene are optionally substituted by halogen, or
 R^{*1} is



Q is H or halogen,
 n and m are different from one another and, independently of one another, are 1 to 11,
 p is 0 or 1, and
 L, M and N, each, independently of one another, but differently from one another and from

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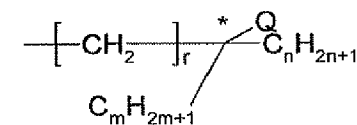
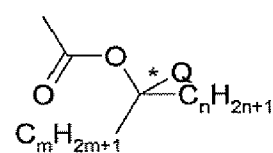
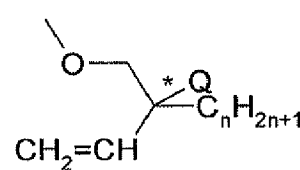
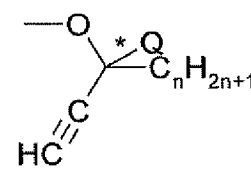
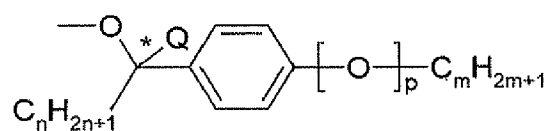
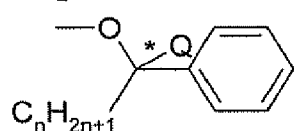
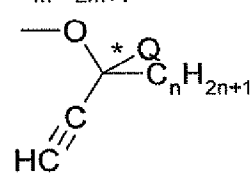
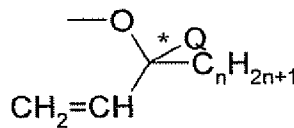
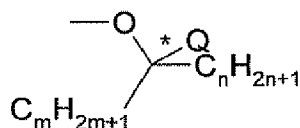


are hydrogen, halogen, aryl or cycloalkyl, alkyl or alkoxy having 1 to 11 C atoms, alkenyl, alkenyloxy, alkynyl or alkynyloxy having 2 to 11 C atoms, where one, two or more of the -CH₂- groups present in the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally replaced by -O-, -C=O- or -S-, but where no two O atoms are bonded directly to one another and the alkyl, alkoxy, alkenyl, alkenyloxy, alkynyl or alkynyloxy are optionally substituted by halogen;

or

C)

R^{*1} is a chiral radical of one of the following formulae



and

in which

Q is H or halogen,

n and m are different from one another and, independently of one another, are 1 to 11,
p is 0 or 1, and
r is 0 to 4.

44. (New) A liquid crystal mixture according to claim 43, which has an absolute value for HTO or $2.7 \mu\text{m}^{-1}$ or more.